

**FINAL REPORT  
ON THE ERADICATION  
OF FOOT AND MOUTH DISEASE  
IN JAPAN**

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**Japan**

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## 1 FMD eradication

### 1.1. History

On 25 March 2000, an outbreak of FMD was suspected on a beef cattle fattening farm in Miyazaki city, Miyazaki prefecture. After this outbreak, farms in the movement control and surveillance areas, farms epidemiologically related to the infected farm and farms that were using imported forages as feedstuff were subjected to serological surveillance. As a result of this serological surveillance, two cow-calf operations in Takaoka-town, adjacent to Miyazaki-city and one farm in Honbetsu-town, Hokkaido-prefecture were found to be infected with FMD. (ANNEX 1)

Table 1 Outbreaks of FMD in Japan in 2000

Date		Location	Species	Number of susceptible animals
25 March 2000	Farm A	Miyazaki-city, Miyazaki-prefecture	bov	10
3 April 2000	Farm B	Takaoka-town, Miyazaki-prefecture	bov	9
9 April 2000	Farm C	Takaoka-town, Miyazaki-prefecture	bov	16
11 May 2000	Farm D	Honbetsu-town, Hokkaido-prefecture	bov	705

**Farm A** is a farm that was keeping ten Japanese Blacks for fattening purposes. The farmer found some cattle showing pyrexia, anorexia, coughing on 8 March. A private veterinarian visited the farm on 12 March. The veterinarian, finding those anorexia and nasal and mouth erosions spreading to other cattle, reported to Miyazaki Livestock Hygiene Service Center<sup>1</sup> on 21 March. The farm was visited by a veterinary inspector<sup>2</sup> of the Center on the same day. Diagnostic materials were taken and sent to Department of Exotic Diseases, National Institute of Animal Health<sup>3</sup> on 22 March.

On 22 March, the epithelial tissue was subjected to ELISA and CF tests for antigen detection with negative results. On 23 March a gene segment of FMD virus was detected by RT-PCR. On 24 March serum samples from nine animals showed high titer of antibody in ELISA and on 25 March all the ten animals on the farm were suspected to be infected with FMD. All these animals were stamped out on 26 March.

On 4 April, gene sequence data of the segment of FMD virus detected by RT-PCR were found to be close to those of viruses isolated in Asia. (ANNEX 7)

Chinese wheat straws were found to be used as feedstuff on Farm A and were suspected as a source of infection. 23 farms were found to be using Chinese wheat straws originating from the same source, but none of these farms were found to be infected with

<sup>1</sup> Livestock Hygiene Service Centers are prefectural institutions in charge of diagnosis of animal diseases (excluding those that are exotic) in the respective local areas. Each prefecture has several Livestock Hygiene Service Centers, totaling 187 in Japan. In Miyazaki-prefecture, there are three Livestock Hygiene Service Centers, and Miyazaki Livestock Hygiene Service Centers is one of them.

<sup>2</sup> Veterinary inspectors are prefectural official inspectors appointed by prefectural governors to implement measures prescribed by the Domestic Animal Infectious Disease Control Law

<sup>3</sup> National Institute of Animal Health is one of the institute of Ministry of Agriculture, Forestry and Fisheries in charge of research on animal health and diagnosis of exotic animal diseases. Its main laboratory is located in Tsukuba-city, Ibaraki prefecture while its Department of Exotic Diseases is located in Tokyo.



FMD as the result of clinical and serological surveillance. There has been no evidence confirmed suggesting the movement of animals, vehicles or people or the air-born transmission as the source of infection.

**Farm B** was a cow-calf operation keeping nine Japanese Black cattle (six cows and three calves). Serum samples taken on 29 March showed that three of them had an antibody titer of or over 1:45 as the result of ELISA test. On 2 April, serum samples were taken again from all the nine cattle, six of which were sero-positive with rise in antibody titer. On 3 April, this farm was suspected to be infected with FMD and all of the nine cattle were stamped out on 4 April.

Farm B was located 7 km west of Farm A. The private veterinarian who visited Farm A on 21 March was found to have visited Farm B and two other farms on the way to this farm after he visited Farm A. He was found to have also visited 105 other farms around this date. None of these farms were found to be infected with FMD as the result of clinical and serological surveillance. It was also found that the animals that this private veterinarian treated on Farm B on 21 March had antibody titer lower than the other animals kept in the Farm B. There has been no evidence confirmed suggesting the movement of animals or vehicles, feeding of contaminated feedstuff or air-born transmission as the source of infection.

**Farm C** was a cow-calf operation keeping 16 Japanese Black cattle (ten cows and six calves). Serum samples taken from two animals on 29 March were found to be positive as the result of ELISA test. On 6 April, serum samples were taken again from ten cattle, all of which had a high antibody titer. On 9 April, this farm was suspected to be infected with FMD. All the 16 cattle were stamped out on 10 April. It was found later that a private veterinarian visited the farm on 20 March to treat some animals showing salivation and anorexia.

On 14 April, a FMD virus was isolated from a Probang material taken from one of the 15 animals destroyed on 10 April. On 26 April, this virus was found to have the gene sequence identical to that of the segment detected from Farm A.

Farm C was located 2 km west of Farm A. The private veterinarian who visited Farm C on 20 March was found to have visited 75 farms on 20-23 March. None of these farms were found to be infected with FMD as the result of clinical and serological surveillance. There has been no evidence confirmed suggesting the movement of animals, feeding of contaminated feedstuff or the air-born transmission as the source of infection. No evidence has been found that indicates transmission by people or vehicles.

**Farm D** was a feed-lot keeping 705 cattle (Holstein steers; Japanese Blacks; and F1s between Holstein and Japanese Black) for fattening purposes. ELISA test on serum samples taken on 7 April from 15 animals resulted in one sero-positive animal. ELISA test on sera sampled again on 24 April resulted in an increase of sero-positive animals and rise in antibody titer in some animals. After this farm was subjected to *Herd Under Quarantine Program*<sup>4</sup> on 29 April, ELISA test and Probang test on positive animals were repeatedly carried out. The RT-PCR on Probang materials conducted on 9 May resulted in two positive animals. On 11 May, all the 705 animals were suspected to be infected. All the 705 cattle were stamped out by 15 May. None of the animals showed clinical signs suspicious of FMD.

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<sup>4</sup> Explained in ANNEX 5.

On 13 May, gene sequence data of the segment detected by RT-PCR were found to be identical to those of the virus isolated from Farm C.

Farm D was using Taiwanese rice straws and Indonesian sugar cane tops as feedstuff, but none of the farms using rice straws originating from the same source or using sugar cane tops from the same source were found to be infected with FMD. There has been no evidence confirmed suggesting the movement of animals, vehicles or people or the air-born transmission as the source of infection.

## 1.2. Strategy

The Domestic Animal Infectious Diseases Control Law (Law No.166, 1951) prescribes the measures that shall be taken to prevent and control outbreaks of animal infectious diseases. Malignant Exotic Animal Diseases Control Guidelines (MAFF Livestock Industry Bureau Director General Administrative Notification No.50-Chiku-A-3843, 1975 amended by No. 51-Chiku-A-2760, 1976) prescribes the strategy for the control of FMD and other major exotic diseases. Based on these guidelines, the strategy to eradicate FMD included:

- ☐ eradication by stamping out the infected farms;
- ☐ intensive surveillance of farms in the movement control and surveillance areas and farms epidemiologically related to the infected farms;
- ☐ nation-wide clinical surveillance and diagnosis of any animals with clinical signs suspicious of FMD.

## 1.3. Vaccines and vaccination

No vaccination was applied for the eradication of FMD.

For emergency use, Ministry of Agriculture, Forestry and Fisheries (MAFF) imported 3.8 million doses of type O vaccines between 3 and 27 April in addition to the 300,000 doses imported annually. All of these vaccines are stored at Animal Quarantine Services and other national institutions under the supervision of MAFF.

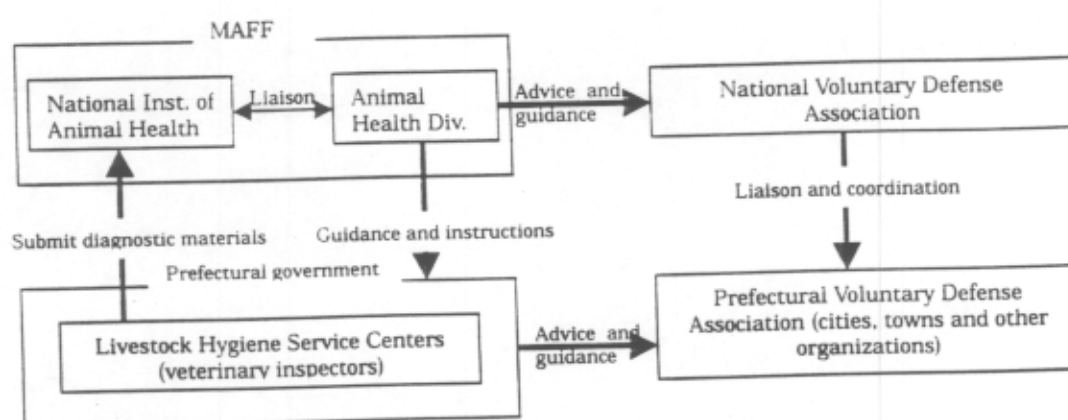
## 1.4. Organization

### 1.4.1. National and prefectural official organization

Domestic control measures against animal diseases are taken by the prefectural governments under the guidance and instructions of the Ministry of Agriculture, Forestry and Fisheries (MAFF). Each prefecture has one to 14 Livestock Hygiene Service Centers (187 of them nation-wide). 2,127 veterinarians allocated to these Centers, other veterinarians employed by the prefectural governments other than these centers and some private veterinarians are appointed as veterinary inspectors (5,820 veterinary inspectors nation-wide) to implement various measures provided by The Domestic Animal Infectious Diseases Control Law.

Diagnosis of animals diseases are carried out by the Livestock Hygiene Service Centers, except the diagnosis of FMD and other exotic diseases, which is conducted by National Institute of Animal Health, MAFF.

Figure 1 National and prefectural organization



#### 1.4.2. Voluntary defense organization

As a body that promote voluntary disease control by farmers, a voluntary defense organization (which is called Voluntary Defense Association), having cities, towns and villages and other livestock organizations as its members, is established in each prefecture. National Voluntary Defense Association is there to liaison and coordinate between the prefectural associations. During the eradication campaign, the voluntary defense associations provided farmers with disinfectant, and helped increase the farmers' awareness of clinical signs of FMD, and promoted the early notification of animals suspicious of FMD.

#### 1.4.3. FMD eradication teams

Immediately after the first outbreak of FMD in Miyazaki on 25 March, FMD eradication teams were formed at different levels, to orient the staff in different organizations toward eradication of FMD (ANNEX 2). Central FMD eradication team was formed in MAFF. Prefectural FMD eradication teams were formed in Miyazaki, Kagoshima, Kumamoto<sup>5</sup> and Hokkaido prefectural governments. Local FMD eradication teams were formed in Miyazaki and Tokachi Livestock Hygiene Service Centers.

#### 1.5. Execution

##### 1.5.1. Stamping out and disinfection

All the animals kept each of the four infected farms were stamped out. Feed, bedding stuff, manure and compost were buried. Facilities holding the animals and equipment used to handle the animals were disinfected.

Table 2 Dates of various measures taken for each outbreak

	Diagnosed on	Stamping out completed on	Number of animals destroyed	Movement control area applied
Farm A (Miyazaki)	25 March	26 March	10	25 March-22 April
Farm B (Miyazaki)	3 April	4 April	9	3 April-25 April
Farm C (Miyazaki)	9 April	10 April	16	9 April-2 May
Farm D (Hokkaido)	11 May	15 May	705	11 May-9 June

<sup>5</sup> Kagoshima and Kumamoto prefectures are prefectures adjacent to Miyazaki prefecture and some of their cities and town were located in the surveillance area.

### 1.5.2. Movement control

On 25 March, when the first outbreak was suspected on Farm A, a movement control area of 20 km radius around Farm A, consisting of 12 cities, towns or villages, was established. A surveillance area of 20-50 km radius around Farm A, consisting of 32 cities, town or villages was established on the same day.

In the movement control area, movement of cloven-hoofed animals, farm equipment and other goods that had a potential to become a mechanical vehicle of infection was prohibited. Livestock markets and slaughter houses were closed and mating and artificial insemination were prohibited in this area.

Movement out of the surveillance area of cloven-hoofed animals and other goods that had a potential to become a mechanical vehicle of infection was prohibited. Livestock markets were closed in this area.

On 23 April, the surveillance area was lifted and the movement control area was reduced to the areas of 10 km radius around Farm B and Farm C respectively, considering the epidemiological findings obtained until then: there was no evidence of air-born transmission and virus strain involved seemed to have a spreading power much weaker than the conventional strains. On 26 April, the movement control area was further reduced to the area of 10 km radius around Farm C until it was completely lifted on 2 May. (ANNEX 1-Figure 2)

On 11 May, when the outbreak on Farm D was confirmed, a movement control area of 10 km radius around Farm D was established, and movement of cloven-hoofed animals and other goods that had a potential to become a mechanical vehicle of infection, pasturing of animals, mating and artificial insemination were prohibited in this area. There was no slaughter house in this area. The movement control was lifted on 9 June. (ANNEX 1-Figure 3)

### 1.5.3. Information activities

After the first outbreak of FMD on 25 March, the MAFF issued several administrative notifications (see belows). In addition, MAFF issued total 59 press releases between 25 March 2000 and 1 September 2000 and also put them on MAFF homepage (<http://www.maff.go.jp/e/index.html>).

MAFF send 7 emergency and follow up reports to the OIE between 25 March 2000 and 9 June 2000 (see belows).

On 27 March, National Voluntary Defense Association circulated 266,000 copies of leaflets with color photos of FMD lesions, to stimulate vigilance and awareness of farmers and urging the early notification of animals with clinical signs suspicious of FMD.

#### **Administrative notifications**

- 'Suspicion of FMD Outbreak (MAFF Livestock Industry Bureau's Director General's Notification No. 12-Chiku-A-658, 25 March 2000)', instructing prefectural governments to warn farmers against FMD
- 'Import ban of cloven-hoofed animals and products thereof from the Republic of Korea (MAFF Animal Health Division-International Affairs Office's Director's Correspondence, 29 March 2000)', instructing the Animal Quarantine Service to refrain from issuing inspection clearance for cloven-hoofed animals and products thereof arriving from the Republic of Korea

- 'Strengthening of import quarantine of forages (MAFF Livestock Industry Bureau's Director General's Notification No. 12-Chiku-A-737, 30 March 2000)', instructing the Animal Quarantine Service to inspect and disinfect forages imported from countries and areas that are not free from FMD
- 'Handling of imported forages (MAFF Animal Health Division's Director's Notification No. 12-35, 30 March 2000)', instructing prefectural governments to guide the farmers not to use forages imported from countries and areas that are not free from FMD
- 'Suspicion of FMD Outbreak (MAFF Livestock Industry Bureau's Director General's Notification No. 12-Chiku-A-1347, 12 May 2000)', instructing again prefectural governments to warn farmers against FMD

#### Report to the OIE

25 March 2000	Outbreak (suspicion) in Farm A
4 April 2000	Outbreak in Farm B
14 April 2000	Outbreak in Farm C
26 April 2000	Lifting of surveillance area around Farm A, B and C
11 May 2000	Lifting all movement control area around Farm A, B, and C
12 May 2000	Outbreak in Farm D
9 June 2000	Lifting of movement control area around Farm D

#### 1.5.4. Other measures

Road blocks and disinfection points were set up in main roads bordering the movement control and surveillance areas. Vehicles transporting feedstuff and milk lorries were disinfected at these points.

Voluntary Defense Associations, agricultural cooperatives and mutual assistance cooperatives conducted disinfection of farms, milk collection facilities in the movement control and surveillance areas.

#### 1.5.5. Animal Identification

There is no animal identification system compulsorily practiced from animal health viewpoints. However, animals are identified by their individual characteristics and/or ear tags for the purpose of pedigree registration and performance testing. Livestock registration associations and other relevant organizations record their location.

#### 1.5.6. Official Veterinary Service supervision

When an animal showing signs suspicious of FMD is found, the owner of the animal or the veterinarian who found it must immediately report it to the prefectural governor. Upon receiving a report, the farm is visited by a prefectural veterinary inspector. Prevention and control measures are implemented by prefectural inspectors, or implemented under the supervision thereof.



## 2. FMD surveillance

### 2.1. Diagnosis

#### 2.1.1. Clinical diagnosis

Clinical diagnosis in the farm visits by prefectural veterinary inspectors consisted of examinations of animals for vesicles, erosions and ulcers in their mouth, hoofs and udder and for excessive salivation, difficulty in mastication, acute lameness and inferior general conditions. Later, the veterinary inspectors were instructed to examine the animals, keeping in mind the characteristics of the FMD virus strain (erosions, ulcers in the mouth and nose and salivation are the main clinical signs and disorders in hoofs and udder are not frequently found).

Private veterinarians and farmers were warned as well to inform immediately the Livestock Hygiene Service Centers, if they found any animal with such clinical signs.

#### 2.1.2. Clinical surveillance

Between 25 March and 9 June, 93,225 visits were made by prefectural veterinary inspectors for clinical surveillance, to the farms in the movement control and surveillance areas and farms in other areas. Also, 143,306 farm visits were made by private veterinarians during this period for clinical surveillance of FMD. All the farms in the movement control and surveillance areas and some other farms nation-wide were subjected to the clinical surveillance.

Table 3 Number of farm visits made by prefectural inspectors and private veterinarians (26 March-9 June 2000)

	dairy farms	beef cattle farms	pig farms	sheep and goat farms	others	total
Visits by prefectural inspectors	21,707	64,575	5,823	816	304	93,225
Visits by private veterinarians	69,443	68,337	4,535	859	132	143,306
Total	91,150	132,912	10,358	1,675	436	236,531

#### 2.1.3. Laboratory tests

Between 26 March and 2 August, 35 cases suspicious of FMD were reported to MAFF on the clinical surveillance. Diagnostic materials were submitted to National Institute of Animal Health, and none of them were diagnosed as FMD as the result of serological test (ELISA for antibody detection) and antigen detection tests (ELISA for antigen detection, RT-PCR and virus isolation) on lesional swabs and Probang materials. (ANNEX 3)

#### 2.1.4. Serological surveillance

After the first outbreak in **Miyazaki prefecture**, 27,890 farms (47,177 serum samples) were subjected to the serological surveillance programme in ANNEX 4. These farms consisted of:

- ☐ all the cattle farms in the movement control and surveillance areas
- ☐ farms that recently introduced animal from farms in the movement control and surveillance areas
- ☐ farms feeding imported forages

Table 4 Serological surveillance after the first outbreak in Miyazaki

	Number of farms	Number of animals
Movement control area	3,619	8,258
Surveillance area	12,184	17,873
Areas out of movement control and surveillance areas in Miyazaki, Kagoshima and Kumamoto prefectures	8,054	8,712
Farms that introduced cattle from movement control and surveillance areas	1,535	4,325
Farms feeding imported forages	1,169	4,235
Others	1,329	3,774
Total	27,890	47,177

Of these 27,890 farms, 405 farms had a sero-positive reactor and were subjected to re-testing. Of these 405 farms, 60 farms did not prove to be false positive or true positive as the result of re-testing, and were subjected to *Herd Under Quarantine Programme* in ANNEX 5. All these 60 farms except Farms B, C and D proved to be free from FMD infection.

After the outbreak on Farm D in **Hokkaido prefecture**, 139 farms in the movement control area and 85 farms that shipped animals to Farm D were subjected to the serological surveillance programme in ANNEX 6 by 20 May. All these 224 farms proved to be free from FMD infection (see Table 5).

Table 5 Serological surveillance after the outbreak in Hokkaido

	Number of farms	Number of animals
Movement control area	139	3,506
Farms that shipped animals to Farm D	85	2,211
Total	224	5,717

#### 2.1.5. Epidemiological studies

The source of infection was investigated by an epidemiological investigation team composed of some member of the MAFF's Animal Health Division, NIAH's Epidemiological Research Unit and Animal Quarantine Service, which produced the following results.

The virus isolated from some of the outbreaks was found to be of Pan Asian toptotype prevailing in East Asian countries suggesting that the FMD which broke out in Japan for the first time for 92 years was introduced into Japan from an East Asian country.

The disease broke out on three farms which are located in a limited area of 9 km distance in two adjacent municipalities along the Oyodo River (including tributaries) and on one farm in Hokkaido.

The epidemiological investigation team studied extensively for possible transmitting factors including animals, humans (veterinarians, artificial inseminators, cow claw trimmers, owners of animals and their families), vehicles (those for carrying animals or feed, garbage collection trucks etc.), imported feed (forage, grain etc.), wind, other livestock products, insects, wild animals and pet animals which were internationally reported to be high risk factors.

The factor which was not ruled out as that linking between infected farms and East Asian countries is imported forage: both Farm A and Farm D were feeding imported forage. Judging from the estimated exposure date, use of forage from East Asian countries and gene sequence similarity, Farm A is estimated to be the primary outbreak, from which the

disease spread locally to Farm B and Farm C.

The following facts supports the hypothesis that wheat straw of Chinese origin used in Farm A carried FMD virus into Japan, while there were no facts found nullifying this hypothesis;

- (1) Farm A was feeding the imported wheat straw of China origin to animals,
- (2) Chinese wheat straw was imported in winter, during which FMD virus reportedly to survive for longer time,
- (3) some of the Chinese wheat straw was found to be stained with feces-like substances,
- (4) importation of Chinese wheat straw increased rapidly since 1997,
- (5) Miyazaki and Hokkaido prefectures have more amount of storage and consumption of wheat straw of Chinese origin than the other prefectures, (see table 6 and 7)

The other possible source of infection were examined, but there was no information available to support the hypothesis that they transmitted FMD into Japan, and it is difficult to explain by information so far available that they carried FMD into Japan.

VP1 gene of the virus isolated from the outbreak in Hokkaido was identical to the gene sequences isolated from Farms A and C, which can lead to the possibility that the disease in Hokkaido was transmitted from Miyazaki or of the same East Asian origin. However, no epidemiological fact has been confirmed so far which connects Farm D and Farms A, B or C and it is difficult to single out any specific source of transmission.

Table 6 Amount of stored wheat straw of Chinese origin by prefectures

Prefectures	Amount (tons)	Share
Hokkaido	156	19.8
Miyazaki	324	41.2
Kagoshima	297	37.7
Other 44 prefectures	110	1.3
Total	787	100.0

Note: As of 1 June 200 Source: Animal Health Division, MAFF

Table 7 Estimated Amount of consumed wheat straw of Chinese origin by prefectures

Prefectures	Amount (tons)
Hokkaido	3,391.4
Miyazaki	7,043.6
Kagoshima	6,456.6
Other 44 prefectures	217.4
Total	17,109.0

Source: Plant Protection Station "Statistics for Plant Protection 1999"

**Virus strain involved in the outbreaks** – Gene sequence data obtained from the isolated virus was sent to the Animal Health Institute in the UK. It has been confirmed that the viruses involved in the outbreaks on Farms A, C and D have the identical gene sequence (O/JPN/2000), similar to those of virus strains, Pan Asian topotype, now prevailing in Asia.

**Animal inoculation experiment** – Animal experiment using the virus isolated from an animal on Farm C was carried out in highly contained laboratory of Department of Exotic Diseases, National Institute of Animal Health and revealed that;

- the virus has a low pathogenicity in cattle and transmission between Japanese Blacks takes place but transmission between Holstein doesn't take place;
- pigs show typical clinical signs of FMD when infected, and transmission between pigs takes place.
- Transmission between infected cattle and a pig doesn't take place.
- Infected cattle don't show a vesicle that is typical for FMD.



## 2.2. Livestock demographics and economics

### 2.2.1. Livestock demographics

Livestock population in Japan and in the movement control and surveillance areas are shown in Tables 8, 9, 10 and 11.

Table 8 Livestock Population In Japan

	Number of farms	Number of animals	
Dairy cattle <sup>1</sup>	33,600	1,765,000	As of 1 February 2000
Beef cattle <sup>1</sup>	116,500	2,823,000	As of 1 February 2000
Pigs <sup>1</sup>	11,700	9,805,000	As of 1 February 2000
Sheep and goats <sup>2</sup>	6,290	44,800	As of 31 December 1997

Source: MAFF Statistics Bureau

Table 9 Livestock Population In Movement Control Area (20 Km Radius Area) In Miyazaki, Kumamoto and Kagoshima

Dairy farms		Beef cattle farms		Pig farms	
Number of farms	Number of animals	Number of farms	Number of animals	Number of farms	Number of animals
120	4,308	3,392	65,240	184	157,860

Table 10 Livestock Population In Surveillance Area (20-50 Km Radius Area) In Miyazaki

Dairy farms		Beef cattle farms		Pig farms	
Number of farms	Number of animals	Number of farms	Number of animals	Number of farms	Number of animals
641	26,280	12,288	203,535	916	715,959

Table 11 Livestock Population In Movement Control Area (10 Km Radius Area) in Hokkaido

Dairy farms		Beef cattle farms		Dairy and beef farms		Other farms	
Number of farms	No. of animals	Number of farms	No. of animals	Number of farms	No. of animals	Number of farms	No. of animals
96	11,633	31	7,394	11	1,548	1	85

### 2.2.2. Economics

#### Economic losses

##### Direct economic loss

The four farmers (A, B, C and D) were compensated for the animals destroyed and for apart the cost of destruction and burial thereof.

In addition to the compensation paid to the farmers, there were some budgets allocated for FMD control and related measures as shown in Table 12.

Table 12 Budgets for FMD control measures other than compensation paid to the farmers

Purpose	Use of budgets	Amount allocated (million yen)
Control measures	-Tests and investigations	71
	-Voluntary control measures by farmers (Miyazaki)	479
	-Importation of FMD vaccine for emergency use	499
Promotion of consumption of animal products	-Promotion of safety of animal products (Miyazaki)	315
	-Promotion of safety of animal products (Hokkaido)	685
Alleviation of damages on farm management	-Interest subsidy for operating capital of farmers (Miyazaki)	211
	-Interest subsidy for operating capital of farmers (Hokkaido)	84
	-Financial support for animal welfare slaughter	899
	-Financial support for farm facilities (Hokkaido)	84
	-Financial support for heifers which calved during movement control (Hokkaido)	2
	-Price stabilization of beef calves and heifers	3,771
	-Domestic straw production increase project	1,800
Domestic straw production		

#### Slaughterhouses and markets

In the movement control area in **Miyazaki prefecture**, there was one slaughterhouse, two livestock markets. In the surveillance area, there were seven slaughterhouses and six livestock markets.

In the movement control area in **Hokkaido prefecture**, there was no slaughterhouse or livestock market.

Table 13 Number of Slaughterhouses and Number of Animals Slaughtered (1998)

	Number of slaughterhouses	Number of cattle slaughtered	Number of pigs slaughtered
Miyazaki prefecture	10	45,646	1,088,471
Hokkaido prefecture	23	195,485	988,790
Japan total	300	1,327,206	17,232,294

Source: MAFF Animal Health Statistics

### 3. FMD prevention

#### 3.1 Import prevention

##### 3.1.1. Animals and products

**Ports / frontiers** - Japan is surrounded by sea. Under the Domestic Animal Infectious Diseases Control Law seaports and airports are designated as such from which designated quarantine goods (ANNEX 9) shall be imported into Japan (71 designated seaports and airports as at April 2000 ).

Import-inspections at the designated seaports and airports are conducted by animal quarantine officials, and located throughout Japan as at April 2000 are one head office, six branches, 16 sub-branches and five annexes, where 265 animal quarantine officials are engaged in the inspection activities.

**International garbage** - Importation of garbage from ships or airplanes in international service is prohibited under the Domestic Animal Infectious Diseases Control Law and the Plant Quarantine Law, and the garbage is required to be burnt at the seaport or airport of call.

**Genetic material (semen and embryos)** - Under the Domestic Animal Infectious Diseases Control Law, for the purpose of guarding against introduction of any of legally specified infectious diseases (currently 97 diseases) countries, from which importation of semen, embryos and breeding animals are permitted, are limited to certain countries, and animal health conditions for donor animals are required to an exporting country.

Importation of cloven-hoofed animals and their semen and embryos is permitted entry only when they satisfy the following requirements.

- ☐ they are originated from a country without cases of such malignant exotic infectious diseases such as FMD.
- ☐ no cases of FMD, rinderpest, contagious bovine pleuropneumonia and bovine spongiform encephalopathy are reported in the exporting country.
- ☐ the donor animal is tested free of vesicular stomatitis, bluetongue, brucellosis, tuberculosis and other diseases.

**Live animals, meats and other animal products (milk, meat products)** - Under the Domestic Animal Infectious Diseases Control Law, regarding importation of cloven-hoofed animals and their meat and other products potential exporting countries are classified into 3 categories on the basis of prevalence of such malignant exotic infectious diseases as FMD in the countries and which of the cloven-hoofed animals and their meat and products are specified for each of 3 categories (ANNEX 8).

As of 31 May 2000, the Domestic Animal Infectious Diseases Control Law Enforcement Regulations were amended to prohibit importation of cloven-hoofed animals and their products (excluding heat-processed meat treated at the plants designated of the Minister of Agriculture, Forestry and Fisheries) from Peoples Republic of China.

They are among the designated quarantine goods designated in order to guard against introduction into Japan and dissemination of animal infectious diseases and consequently are required to be accompanied with an inspection certificate issued by the government authorities of an exporting country and to be inspected (ANNEX 9).

..

**Straws and forages** - As from 30 March 2000, straws and forages are subject to inspection and fumigation when they are imported from other countries than those listed as free from major malignant exotic infectious diseases.

**Biologics** - Under the Pharmaceutical Affairs Law, importation of biologics for animal use requires approval and permit of Minister of Agriculture, Forestry and Fisheries, to assure their safety. Importation of FMD vaccines is controlled under import quota system, and no quota is allocated but only the Ministry of Agriculture, Forestry and Fisheries (MAFF) is allowed to import for the national prevention and control. Imported FMD vaccine is inspected by National Veterinary Assay Laboratory for safety and efficacy and is stored for emergency at Government facilities such as Animal Quarantine Service.

#### 3.1.2. Importation of microorganism

Under the Domestic Animal Infectious Diseases Control Law, importation of microorganism requires permit of Minister of Agriculture, Forestry and Fisheries. Importation of microorganisms of such malignant exotic infectious diseases as FMD is strictly controlled.

Diagnosis of FMD is performed only at the highly contained laboratory of Department of Exotic Diseases, National Institute of Animal Health, and isolated FMD virus are stored only at this facility.

#### 3.1.3. Official Veterinary Service supervision

At national level Ministry of Agriculture, Forestry and Fisheries directly supervises FMD preventive and control measures in ways that Animal Health Division is responsible for overall planning and coordination, animal quarantine service for import / export inspection, National Veterinary Assay Laboratory for assaying biologics, and National Institute of Animal Health for diagnosis of such malignant exotic infectious diseases as FMD.

At prefectural level, Livestock Industry Division of a prefectural government is responsible for planning and overall coordination and a prefectural Livestock Hygiene Service Center is responsible for official preventive and control measures empowered by the Domestic Animal Infectious Diseases Control Law for animal infectious diseases.

## 4. Response to outbreak

### 4.1 Policy

#### 4.1.1 Emergency measures

In response to an outbreak of FMD, import inspection was strengthened for straws and forages imported from FMD infected countries/areas as from 30 March 2000. Also, the farmers were instructed not to use straws and forages, for feeding or bedding, which had been imported.

Importation of meat and meat products of cloven-hoofed animals from the Republic of Korea was suspended as from 27 March, soon after FMD was suspected to have broken out there, and was prohibited as from 10 April after the completion of legal formalities. Importation of cloven-hoofed animals from China was prohibited as from 31 May.

As of 31 May 2000, the Domestic Animal Infectious Diseases Control Law Enforcement Regulations were amended to prohibit importation of cloven-hoofed animals and their products (excluding heat-processed meat treated at the plants designated of the Minister of Agriculture, Forestry and Fisheries) from China.

#### 4.1.2. Planned measures

For the sake of better prevention and preparedness for emergency the followings are planed.

- ☐ epidemiological surveillance
- ☐ risk analysis of probable sources of infection and strengthening of import inspection
- ☐ confirmation of infectivity etc. of isolated FMD virus
- ☐ review of an emergency manual and the Domestic Animal Infectious Diseases Control Law

#### 4.1.3. Budget

Application of necessary budget to the Ministry of Finance is being made for training of specialists, storage of materials for control measures, improvement of diagnostic capability and so on.

5. Conclusion

- 1) Phylogenic analysis of viral gene of the virus isolated shows that the virus belongs to Pan Asian topotype prevailing in East Asia, suggesting that the virus originates in East Asia.
- 2) This information along with other epidemiological information obtained until now suggests that the wheat straw used in Farm A is the most probable source of infection among all the other possible sources.
- 3) Adequate measures were taken in time for the control of disease by the ministry and local authorities, veterinarians and other people concerned without resorting to vaccination against FMD resulting in only four farms.
- 4) 52,894 animals on 28,114 farms (including those using imported forage) were subjected to serological surveillance and 93,225 and 143,306 farms were visited by prefectural inspectors and private veterinarians respectively for clinical examination for FMD, with no clinical signs except for the 35 farms whose samples were tested in the NIAH with negative results.
- 5) More than three months have elapsed since the last outbreak of FMD on Farm D on 11 May 2000.
- 6) Information was provided to the OIE on the FMD situation in Japan according to the epidemiological notification system prescribed in Article 1.2.0.3 of the OIE International Animal Health Code.
- 7) Based on the above, I am confident that Japan fulfills all the requirements in Article 2.1.1.2 of the OIE International Animal Health Code to regain the FMD free status without vaccination.

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Figures showing the location of FMD outbreaks in Japan

Fig. 1 Japan

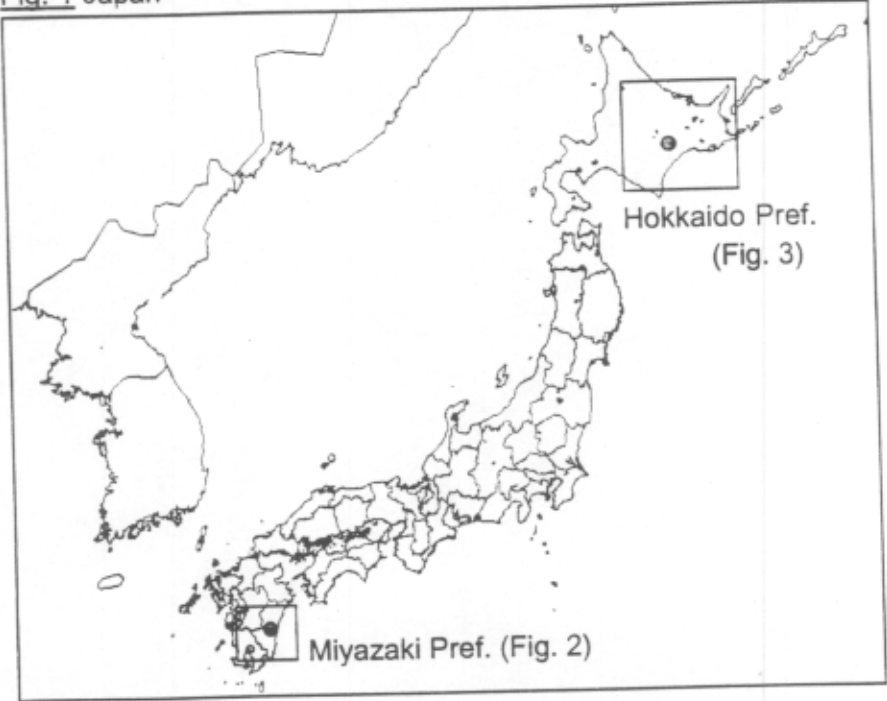
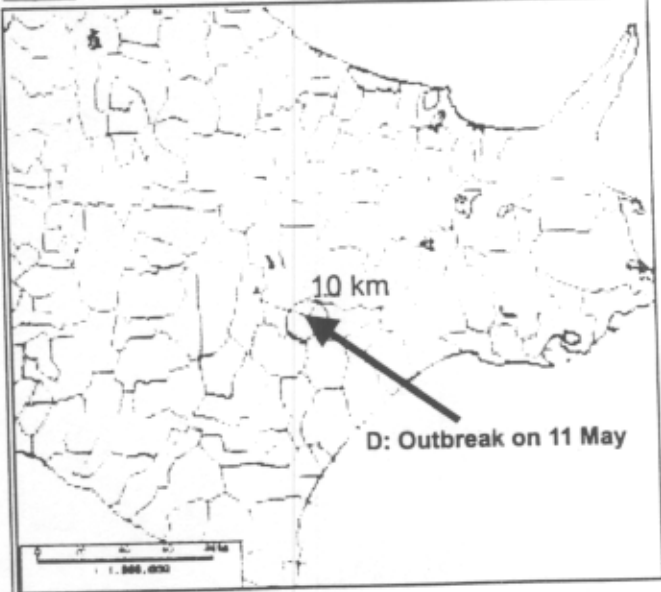


Fig. 2 Miyazaki-prefecture



A: Outbreak on 25 March  
B: Outbreak on 3 April  
C: Outbreak on 9 April

Fig. 3 Hokkaido-prefecture





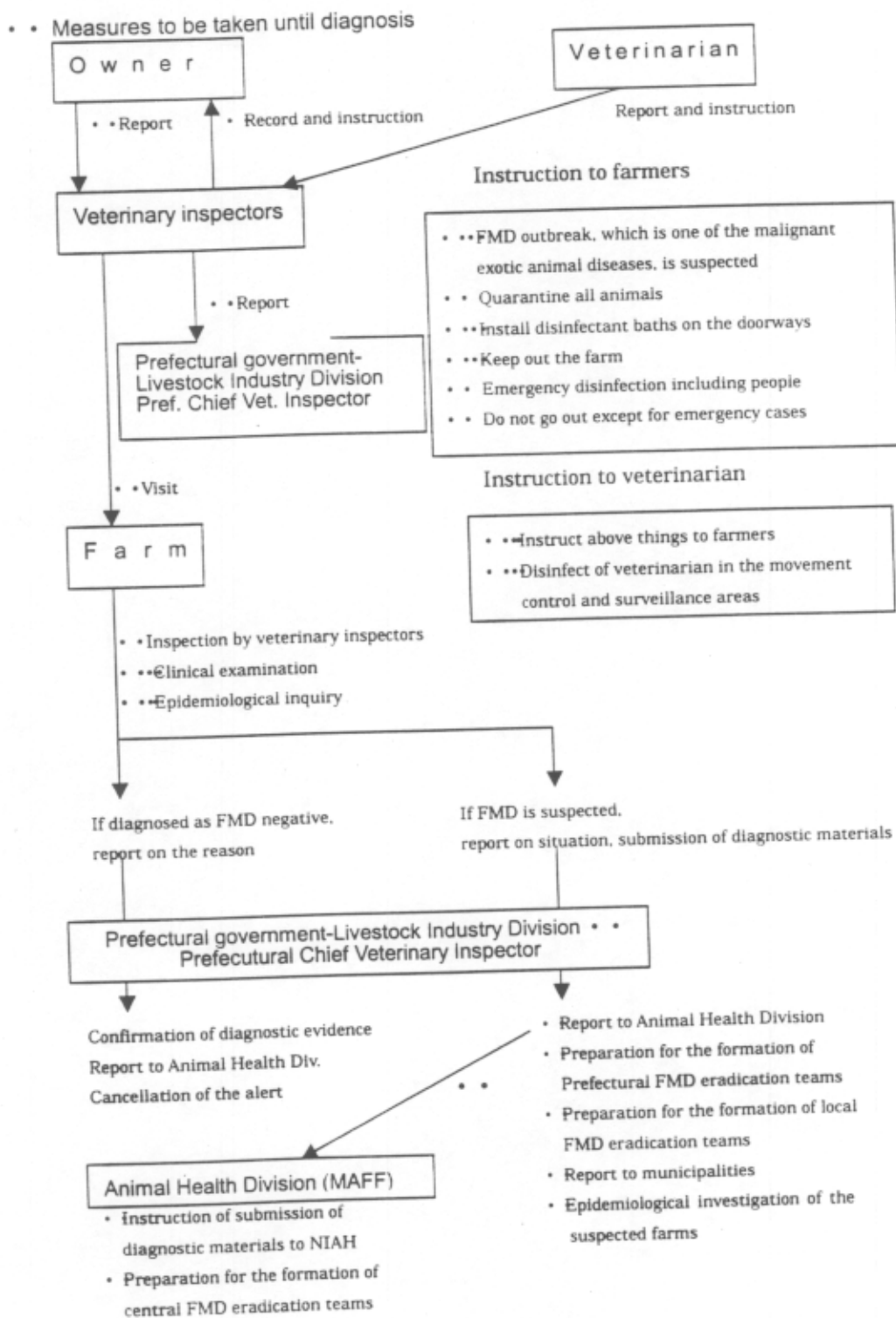
## ANNEX 2

### Outline of Malignant Exotic Animal Diseases Control Guideline

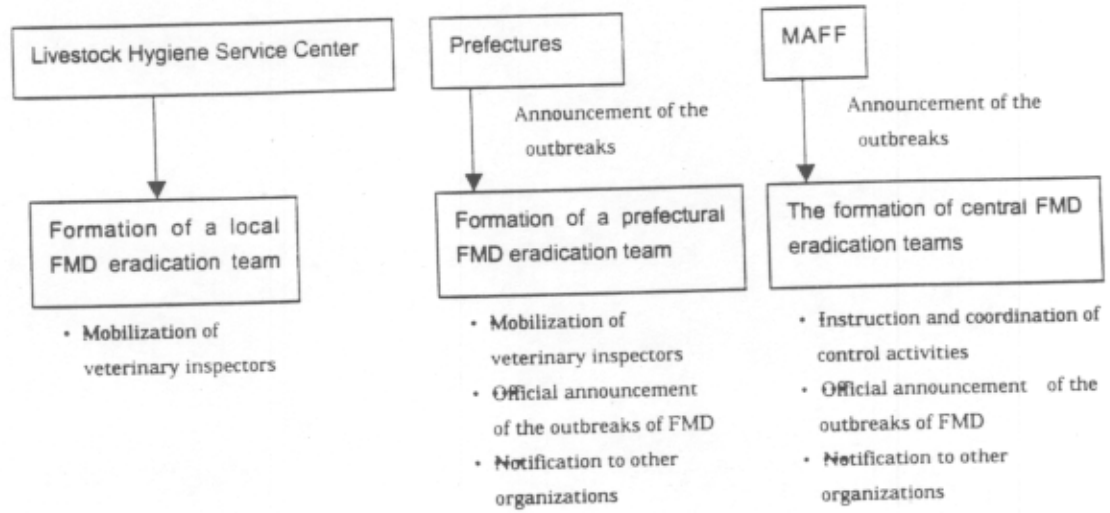
Malignant Exotic Animal Diseases Control Guidelines provide measures that should be taken to eradicate FMD and other malignant exotic animal diseases including rinderpest and African swine fever, in case that any of those diseases break out in Japan.

- 1) Procedures of Diagnosis (notification, farm visits by veterinary inspectors, etc.)
- 2) Measures that should be taken after an outbreak of FMD is suspected (announcement, formation of FMD eradication teams, etc.)
- 3) Execution of control measures (stamping out, disinfection, etc.)
- 4) Tracing of animals that had a contact with infected animals
- 5) Movement Control and restriction on livestock markets
- 6) Emergency vaccination
- 7) Organization

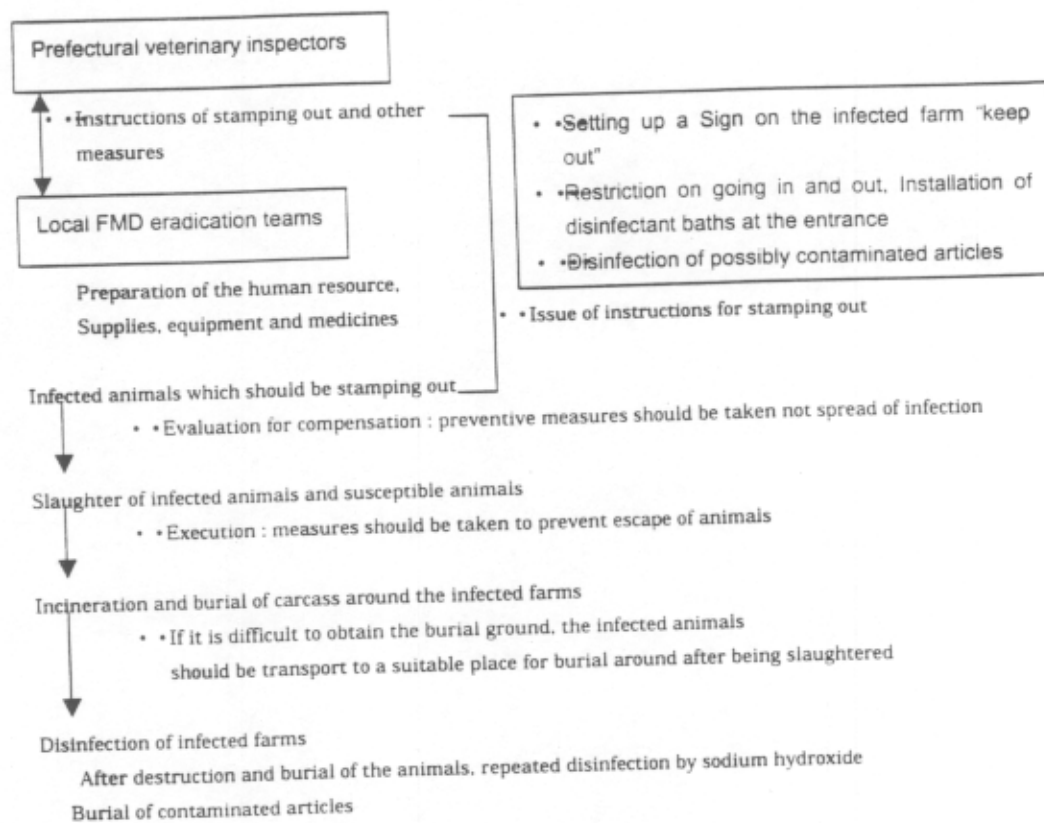
**Outline of Malignant Exotic Animal Diseases Control Guidelines  
(Chapter 2-Control Measures)**  
Numbers in circle represent the orders when each measure should be taken.



- • Measures that should be taken when an outbreak of FMD is confirmed



• • Control measures in the field



- • Tracing of animals that had a contact with infected animals

Tracing survey

Prefectural Government Livestock Industry Division

According to the result of the inspections in 1-1, administrative notifications are issued

Livestock Hygiene Service Center

Animals that were found to have a contact with infected animals on the result of survey should be destroyed out

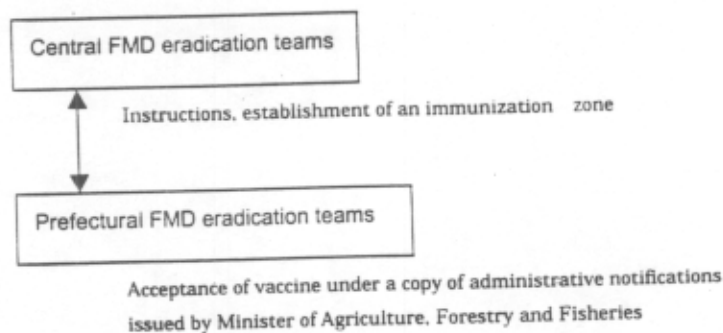
- • Movement Control and restriction on livestock markets

Area where the infected farm is located: blockade of traffic for 48hours

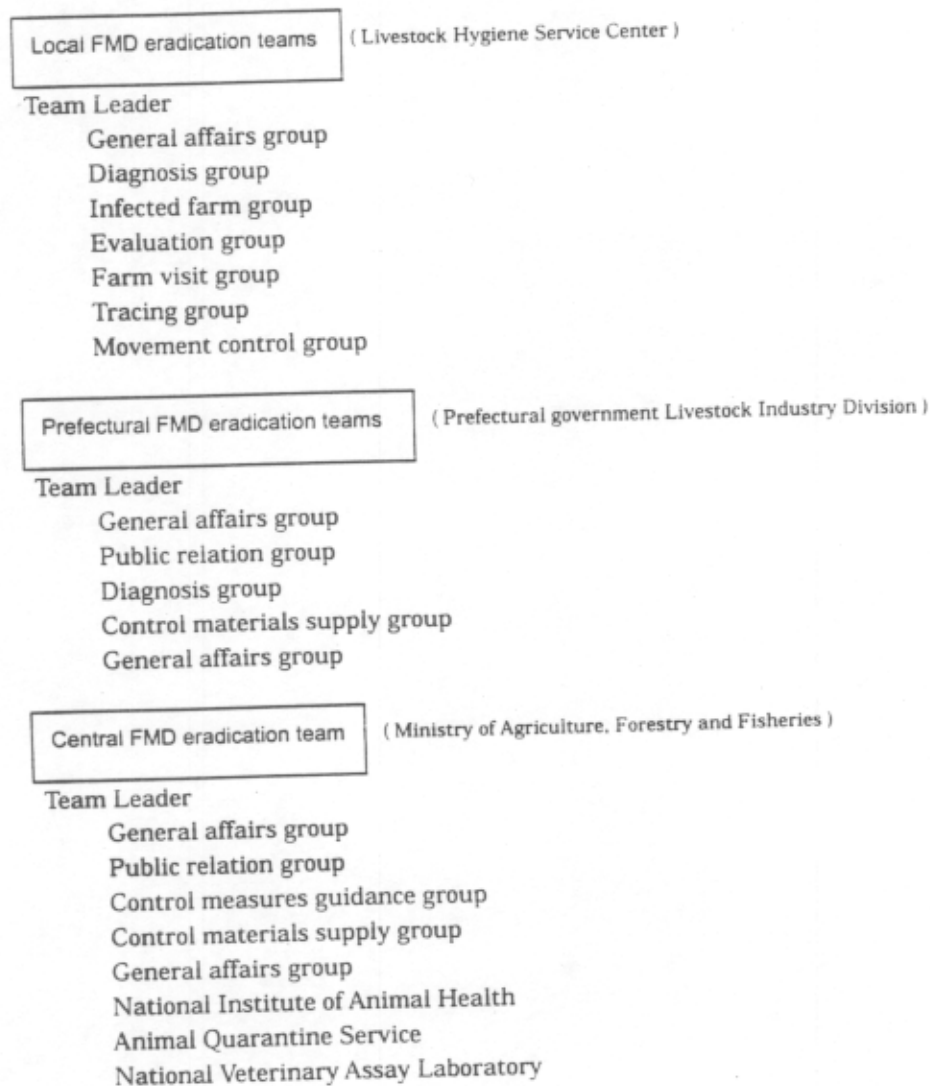
A movement control area : 20 km radius around infected farm. Movement of cloven-hoofed animals is prohibited. Livestock markets and slaughter houses are closed for 3 weeks.

A surveillance area : 20-50 km radius around infected farm. Movement out of the surveillance area of cloven-hoofed animals is prohibited.

- • Emergency vaccination (if necessary)



- • Organization of FMD eradication teams



# ANNEX 3

## Diagnosis of animal with clinical signs suspicious of FMD

No	Date	Prefectures	Farm Types	No. of animals with signs	Clinical Signs	Diagnosis
1	3/26	Kumamoto	Dairy and Beef	1	Salivation Red-spot in the oral mucosa Vesicles on the tongue	PCR <sup>1)</sup> (-) ELISA-AB <sup>2)</sup> (-) ELISA-AG <sup>3)</sup> (-)
2	3/26	Miyazaki	Beef	3	2 animals: Fatty mass in the nasal cavity 1 animal: Ulceration in the nasal mucosa	PCR (-) ELISA-AB (-) ELISA-AG (-)
3	3/27	Kagoshima	Beef	1	Stomatitis Salivation Fever	PCR (-) ELISA-AB (-) ELISA-AG (-)
4	3/27	Kanagawa	Dairy and Beef	1	Fever	ELISA-AB (-)
5	4/5	Hiroshima	Dairy and Beef	4	1 animal : Vesicles 1 animal : Fever, Salivation	PCR (-) ELISA-AB* (-) ELISA-AG** (-)
6	4/6	Gifu	For tourist	1	Pustular dermatitis in the lips	PCR (-) ELISA-AB (-) ELISA-AG (-)
7	4/13	Miyazaki	Beef	1	Salivation Decrease of appetite	ELISA-AB (-)
8	4/13	Miyazaki	Beef	1	Salivation Fever	PCR (-) ELISA-AG (-)
9	4/13	Miyazaki	Beef	1	Salivation	PCR (-) ELISA-AG (-)
10	4/13	Miyazaki	Beef	1	Salivation Red-spot in the upper lip and sublingual mucosa	PCR (-) ELISA-AG (-)
11	4/14	Kyoto	Dairy	1	Salivation	ELISA-AB (-)
12	4/17	Miyazaki	Beef	2	Vesicles	PCR (-) ELISA-AB (-) ELISA-AG (-)
13	4/18	Kyoto	Dairy	1	Fever Rhinitis	PCR (-) ELISA-AB (-) ELISA-AG (-)
14	4/18	Yamaguchi	Beef	1	Vesicles in the muzzle	PCR (-) ELISA-AB (-) ELISA-AG (-)
15	4/18	Okinawa	Beef	1	Vesicles in the lower surface of tongue	PCR (-) ELISA-AB (-) ELISA-AG (-)
16	4/24	Aomori	Beef	1	Salivation Decrease of appetite	PCR (-) ELISA-AG (-)

Notes 1) PCR: Polymerase Chain Reaction, PCR carried out with Virus Isolation (all negative)  
2) ELISA-AB: ELISA for antibody detection. 3) ELISA-AG: ELISA for antigen detection.

No	Date	Prefectures	Breeding	Case	Clinical Signs	Diagnosis
17	4/24	Yamagata	Beef	1	Ulceration in the muzzle	PCR <sup>1)</sup> (-) ELISA-AB <sup>2)</sup> (-) ELISA-AG <sup>3)</sup> (-)
18	5/2	Hyogo	Beef	2	1 animal : Vesicles on the nasal region 1 animal : Ulceration and erosion in the nasal mucosa	PCR (-) ELISA-AB (-) ELISA-AG (-)
19	5/2	Kumamoto	Dairy	1	Salivation	PCR (-) ELISA-AG (-)
20	5/2	Kumamoto	Dairy	1	Salivation	PCR (-) ELISA-AG (-)
21	5/8	Fukushima	Dairy	1	Salivation Decrease of appetite	PCR (-) ELISA-AG (-)
22	5/12	Kagoshima	Beef	2	Salivation Ulceration in the oral mucosa	PCR (-) ELISA-AB (-) ELISA-AG (-)
23	5/12	Yamagata	Dairy	4	Ulceration and erosion in the nasal mucosa	ELISA-AB (-)
24	5/13	Aomori	Dairy	1	Salivation Fever	PCR (-) ELISA-AG (-)
25	5/15	Fukushima	Dairy and Beef	1	Ulceration in the nasal mucosa and tongue	PCR (-) ELISA-AG (-)
26	5/16	Kanagawa	Dairy	1	Scab on the nipple	ELISA-AB (-)
27	5/16	Hokkaido	Beef	1	Fever Salivation Ulceration in the tongue	ELISA-AB (-)
28	5/16	Gunma	Dairy	1	Interdigital pododermatitis in the left hind leg	ELISA-AB (-)
29	5/23	Saga	Beef	1	Vesicles on the tongue	PCR (-) ELISA-AG (-)
30	5/25	Iwate	Beef	1	Stomatitis	ELISA-AB (-)
31	5/25	Gunma	Dairy	2	1 animal : Nodular mass on the muzzle 1 animal : Fever	ELISA-AB (-)
32	6/23	Gunma	Goats	9	Astasia Death	PCR (-) ELISA-AG (-)
33	7/18	Okinawa	Goats	7	Scab and ulcer on the muzzle Nasal discharge Rubber of palate	ELISA-AB (-)
34	8/2	Kagoshima	Beef	2	Ulcer on coronary band and dorsal side of tongue	PCR (-) ELISA-AG (-) NT (-) ELISA-AB (-)
35	8/2	Nagano	Beef	1	Salivation Ulcer on the tongue and oral cavity	ELISA-AB (-)

Notes 1) PCR: Polymerase Chain Reaction, PCR carried out with Virus isolation (all negative)  
2) ELISA-AB: ELISA for antibody detection. 3) ELISA-AG: ELISA for antigen detection.



## ANNEX 4

### Epidemiological Surveillance Program for Miyazaki and Other Prefectures

#### 1. Objectives

Considering that only cattle were involved in the outbreak this surveillance program will apply to cattle farms only. Other species of animals will be subjected to an intensified clinical surveillance. If there is any animal found to be showing clinical signs suspicious of FMD, notification shall be immediately made to the Ministry of Agriculture, forestry and Fisheries' Animal Health Division.

#### 2. Collection of serum samples

##### 2.1. 1 km radius area around the infected farm

###### 2.1.1 Herds subjected to the program

All the herds in 1 km radius area from the infected farm and all the farms epidemiologically linked to the infected farm through movement of animals or veterinarians, transportation of feedstuff and for other reasons.

###### 2.1.2 Animals to be sampled

Ten animals from each herd

##### 2.2 Movement control and surveillance areas out of the one kilometer radius area around the infected farm

###### 2.2.1 Herds subjected to the program

All the herds.

###### 2.2.2 Animals to be sampled

Number of animals to be sampled from each herd will be as follows:

Number of animals in the herd	Number of animals to be sampled
1- 10 animals	1
11-30 animals	2
31-100 animals	3
Over 100 animals	5

## 2.3 Other prefectures

### 2.3.1 Herds subjected to the program

- ☐ All the herds in the areas introducing feeder cattle from the movement control area;
- ☐ All the herds using imported forage originating from the same source as the infected farms;
- ☐ All the farms epidemiologically linked to the infected farms for any other reasons.

### 2.3.2 Animals to be sampled

As indicated in 2.2.1.<sup>6</sup>

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<sup>6</sup> Ten animals were randomly sampled from each of the herds subjected to the program in Hokkaido, against the instructions in this program.

## ANNEX 5

### Herd Under Quarantine Program

#### 1 Objectives

To confirm the free status of the herds that have not been found to be free from FMD during the serological surveillance, using the antibody detection test and PCR test on Probang materials.

#### 2 Herds that shall be subject to this program

Herds that shall be subject to this program will be the herds that have been selected by the Ministry of Agriculture, Forestry and Fisheries' Animal Health Division, as those that fulfil the following criteria:

**Criteria for the herds subject to the program** — The herds that have less than two animals with a titre 1:64 or over are considered to be herds free from FMD. The herds that have one or more animals with a titre 1:256 or over are considered to be herds infected of FMD. The herds that do not fall into either of these herds will be subject to this program.

#### • • Procedures

##### 3-1 Development of testing and bleeding and Probang program

The prefectural governments shall develop a bleeding and Probang program as well as sera and Probang material shipping program and inform the Animal Health Division of these programs. The Animal Health Division shall, in coordination with the NIAH, shall instruct the prefectural governments of any modification if necessary.

##### 3-2 Sampling of animals

The prefectural governments shall take a Probang material from the animal found to be sero-positive during the sero-surveillance. The prefectural governments shall sample all the animals in the herd if the herd is composed of 20 or less animals, or random sample the number of animals sufficient to provide 95% probability of detecting evidence of FMD if present at a prevalence of 10%.

##### 3-3 Bleeding and shipment

The prefectural government shall probang and bleed animals and ship the sera and probang materials according to the sampling procedures in 3-2 and bleeding and shipment program in 3-1. They shall inform the NIAH of the arrival time in advance.

##### 3-4 Results

The NIAH shall inform the Animal Health Division of the results as soon as they are available. The Animal Health Division shall judge the status of the herds

• •

according the following criteria, and inform the prefectural government concerned of their judgements. The prefectural governments shall take necessary measures as soon as they are informed of any infected herds.

3-4-1 Any herds that fulfil all of the following criteria shall be judged to be free from FMD:

- there is no increase of animals with a titre of 1:64 or over
- there is no animals with significant titre rise (rise in three dilutions)
- the sero-positive animal is found to be PCR negative on Probang material

3-4-2 Any herds that fulfil one of the following criteria shall be judged to be infected:

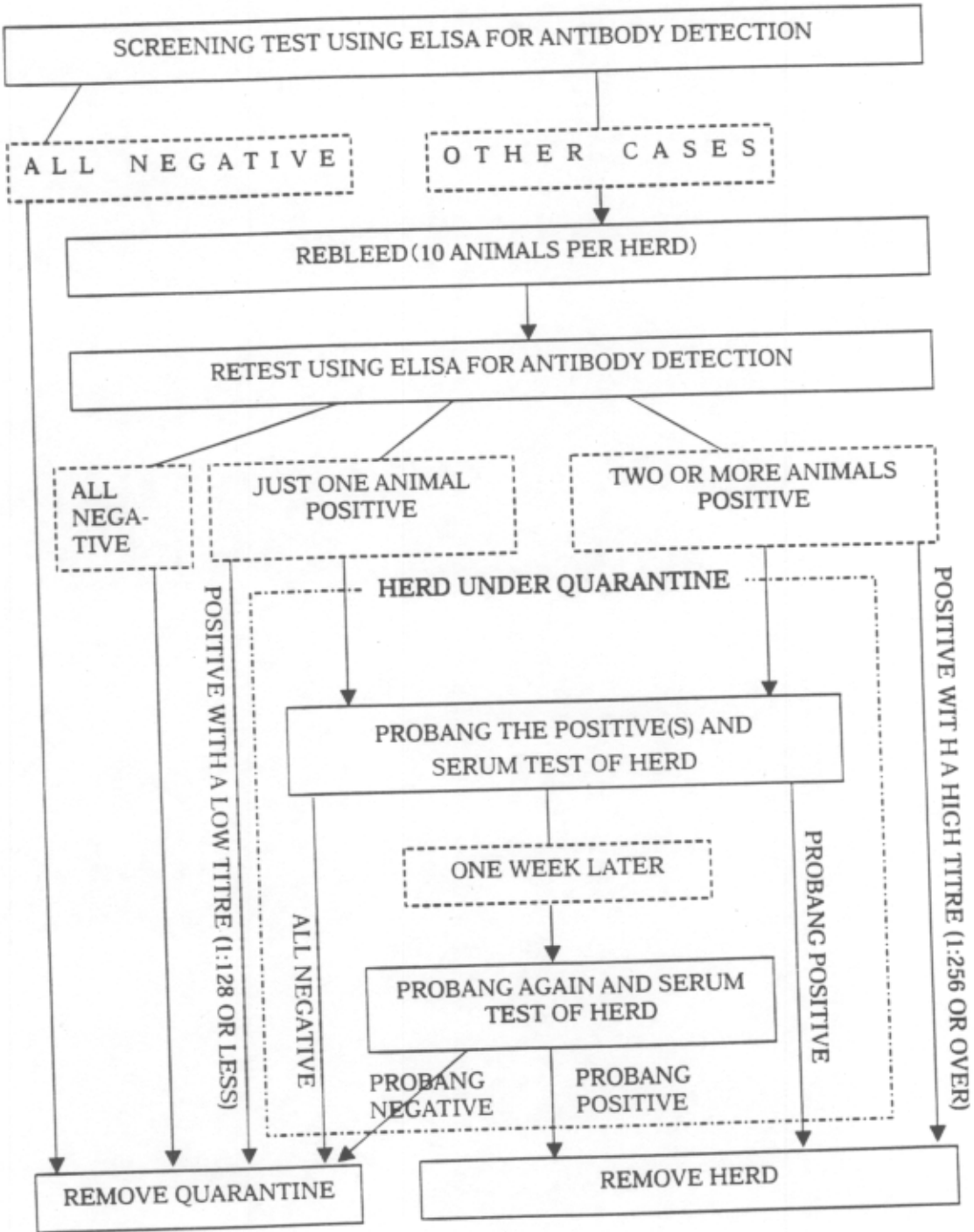
- there is an increase of animals with a high titre (1:181 or over)
- there is an animal with a significant titre rise (rise in three dilutions)
- the sero-positive animal is found to be PCR positive on Probang material

3-4-3 Any herds that do not fall into either of the above shall subject to the continued quarantine program.

#### 3-5 Continued quarantine program

The prefectural governments shall bleed and Probang animals subject to the continued quarantine program again, at least one week later from the bleeding in 3-3, according to the sampling procedures in 3-2. The Animal Health Division, upon receipt of the results from the NIAH, shall make judgement according the criteria in 3-4 (any of the herds that do not fall into 3-4-1 or 3-4-2 shall be judged to be free). The prefectural governments shall take necessary measures as soon as they are informed of any infected herds.

Outline of Tests under the Program



## ANNEX 6

### Epidemiological Surveillance Program for Hokkaido Prefecture

#### 1 Objectives

After the outbreak of FMD in Miyazaki on 25 March 2000, all the herds keeping cattle in the movement control and surveillance areas and some other herds sampled nation-wide were subjected to the serological surveillance.

However, considering that the FMD virus that has caused outbreaks in Japan has been found to have the following characteristics, as the result of the serological and epidemiological surveillance conducted until today:

- the virus has little possibility of air-born spread and has a spreading power weaker than conventional FMD viruses;
- the second and third outbreaks were on the farm epidemiologically linked to the primary outbreak and on the farm within three kilometer from the primary outbreak;

and considering that some internationally recognized experts recommend that the farms within three kilometer radius area around the infected farm and epidemiologically linked farms should be subjected to a serological surveillance, and that a the farms within 10 km radius area around the infected farm should be subjected to a clinical surveillance,

the following epidemiological surveillance will apply to the future outbreaks of FMD:

#### 2 Outlines of the program

##### 2.1 Serological surveillance

The program will apply to the following herds, from which animals will be randomly sampled numerous enough to provide 95% probability of detecting evidence of FMD if present at at a prevalence of 10% in cattle herds (see Table 1) and 20% in pig herds (see Table 2):

- all the cattle and pig herds with in the area of three kilometer radius around the infected herd;
- all the herds epidemiologically linked to the infected herd, by movement of veterinarians, feedstuff transporting vehicles, animals and other things;
- All the cattle herds in the area of 3-10 km radius area in the movement control area.

##### 2.2 Clinical surveillance

All the herds keeping cattle will subjected to the thorough clinical examination by prefectural veterinary inspectors, using the attached questionnaire.

Prefectural veterinary inspectors should prepare an effective surveillance program, keeping in mind the estimated date of infection and incubation period, and visit the herds based on this program.

Table 1 Number of animals to be sampled from cattle herds

Number of animals on the herd	Number of animals to be sampled
15 animals or less	all animals
16 – 20 animals	15 animals
21 – 40 animals	20 animals
41 – 100 animals	25 animals
over 100 animals	30 animals

Table 2 Number of animals to be sampled from pig herds

Number of animals on the herd	Number of animals to be sampled
14 animals or less	all animals
over 14 animals	14 animals



## Attachment

## QUESTIONNAIRE FOR CLINICAL SURVEILLANCE

Name of the Livestock Hygiene  
Service Center \_\_\_\_\_

- 1 Date of visit \_\_\_\_\_  
 2 Name of the farmer \_\_\_\_\_  
 Address of the farmer \_\_\_\_\_  
 Telephone number \_\_\_\_\_  
 3 Species of animals ☐beef cattle ☐dairy cattle ☐pigs  
 4 Number of animals \_\_\_\_\_  
 5 Serum samples ☐taken ☐not taken

- 6 Feed in case of cattle farm Is imported forage fed? ☐yes ☐no  
 If the answer is yes, complete the table below.  
 in case of pig farm Is swill fed? ☐yes ☐no

Types of forage	country of origin	Name of the supplier

- 7 Has there been any abnormalities with animals in the past three weeks? ☐yes ☐no  
 If the answer is yes, describe the details below

( )

- 8 Have you shipped manure out of your farm in the past three weeks? ☐yes ☐no  
 If the answer is yes, describe to whom you shipped manure \_\_\_\_\_

- 9 Movement of animals after March this year

- 9-1 Has there been animals purchased? ☐yes ☐no If the answer is yes, complete the table below.

ID of animals	date of purchased	Name of the suppliers

- 9-2 Has there been animals sold? ☐yes ☐no If the answer is yes, complete the table below.

ID of animals	date of sale	Name of the buyers

- 10 Has there been any people other than the members of your family who visited the farm? ☐yes ☐no  
 If the answer is yes, who visited the farm?  
☐veterinarian ☐AI technician ☐animal trader ☐others

- 11 Have you or any other members of your family visited a foreign country after April this year? ☐yes ☐no  
 If the answer is yes, which country? \_\_\_\_\_

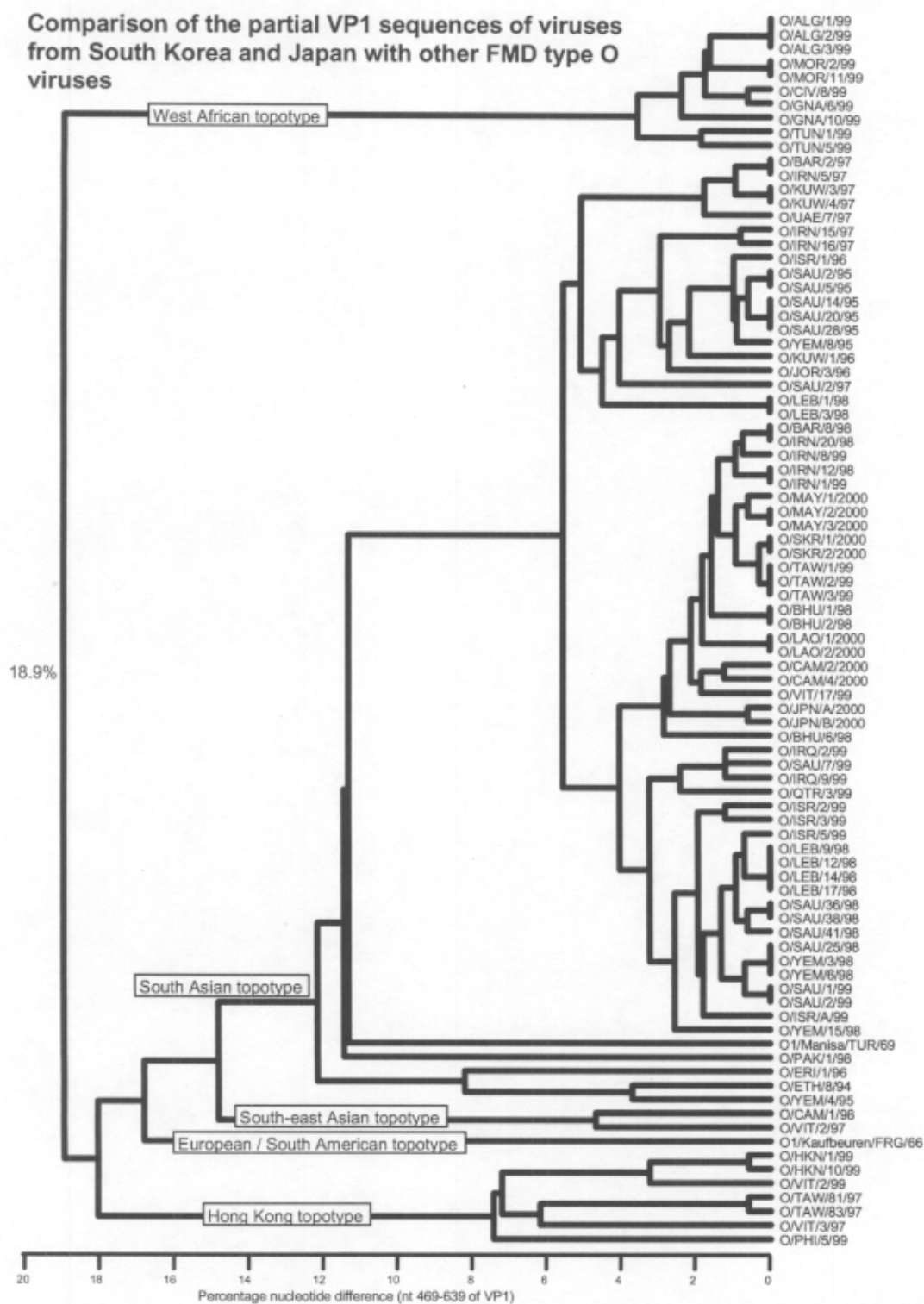
- 12 Any other relevant information \_\_\_\_\_

Note\*: Possible signs that should be kept in mind in diagnosing FMD: fever; salivation; congestion; vesicles or erosions on tongue, lips, toughum, hoofs, muzzle, teats or vaginal mucosa; lameness; abortion; reduced lactation; death of young animals.



# ANNEX 7

## Phylogenetic analysis of partial VP1 sequence of FMD virus, O/JPN/2000



N.J. Knowles, P.R. Davies, A.R. Samuel and T. Kanno, 17 April 2000

## ANNEX 8

### Import prohibition countries and zones••

(As of May 31, 2000)

No.	Classification under the Law	Areas	Articles of cloven-hoofed animals (e.g., cattle, pigs sheep, etc.)			
			Live animals	Semen and embryos	Ham, sausage and bacon	Meat and viscera
0	Areas other than those listed under Article 43 of the Regulations* (areas free from virulent infectious diseases affecting domestic animals)	Finland, Sweden, Norway, Hungary, Denmark, Italy (except Sardinia island), The Netherlands, France, Austria, Spain, Germany, Belgium, Northern Ireland, Ireland, Iceland, Canada, U.S.A., Mexico, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama, The Dominican Republic, Chile, Uruguay, Northern Mariana, New Zealand, Vanuatu, New Caledonia, and Australia (33 areas)	Import Permissible			
1.	Areas in Table 1 under the Article 43 of the Regulations	Singapore, Poland, Romania, Slovenia, Croatia, Bosnia Herzegovina, Switzerland and the United Kingdom (Great Britain only) (8 areas)	Import Permissible			Import not permissible except: (1) Those products heat-processed under the standards set forth by the Minister (Heat-processing establishments designated by appropriate government agencies of the exporting countries are acceptable.) (2) Pork and swine viscera stored or produced in the United Kingdom in accordance with the production and storage standards.
2.	Areas in Table 2 Under the Article 43 of the Regulations	Areas other than those mentioned above	Import not Permissible		Import not permissible except: Those products heat-processed or otherwise processed under the standards set forth by the Minister (only the establishments, etc. directly designated by the Japanese Minister are acceptable).	

\* The "Regulations" in the areas 0 through 2 means the Enforcement Regulations of the Domestic Animal Infectious Diseases Control Law.

## ANNEX 9

### **Designated quarantine goods in accordance with Domestic Animal Infectious Disease Control Law**

- 1 Cloven-hoofed animals (e.g., cattle, pigs, goats, sheep, giraffes, water buffaloes, deer, Japanese serows, reindeer, camels, hippopotamuses)
- 2 Horses (e.g., horses, donkeys, zebras)
- 3 Chickens, ducks, turkeys, quails and geese and eggs of these domestic fowls
- 4 Dogs
- 5 Rabbits, honeybees
- 6 Bone, meat, fat, blood, hides and skins, hair and feather, horn, hoofs, tendons, viscera, raw milk, semen, fertilized ova, unfertilized ova, feces, urine, bone meal, meat meal, meat and bone meal, blood meal, hide and skin meal, hair and feather meal, hoof and horn meal, viscera meal, and carcasses of animals listed in 1 to 5
- 7 Sausages, ham and bacon
- 8 Products under import ban but imported into Japan with the Minister's permit